

Effect of fundamental variables on stock prices (studies on mining companies that go public on the Jakarta stock exchange)

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ABSTRACT

This study aims to determine the effect of fundamental variables consisting of Debt To Equity Ratio (DER), Return On Equity (ROE), Dividend Per Share (DPS), Earning Per Share (EPS), and Price Earning Ratio (PER) on stock prices. The shares in question are shares of mining companies that go public on the Jakarta Stock Exchange. To find out the effect of fundamental variables on stock prices, multiple linear regression analysis was used. The results of the multicollinearity test showed that the DPS and EPS variables were collinear, so that the DPS variables were excluded from the regression model. The results of multiple linear regression analysis show that DER, ROE, EPS and PER simultaneously have a significant effect on stock prices. Then EPS partially has a significant and dominant influence on stock prices. This means that EPS is the main consideration for investors in investing in stocks, especially in mining companies. Therefore EPS can be used as input in predicting stock prices for investors and issuers. For investors who will invest, it is necessary to make EPS as a reference in making investment decisions. For issuers who want to increase their share price in the capital market, they can take steps to improve the company's performance by increasing their EPS because the company sells shares with the consequence that it must meet the investor's goal, namely to get maximum profit. This is the company's obligation to investors. If the investor's goals cannot be met, the company's credibility will decrease.

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1. INTRODUCTION

The capital market is one of the means to collect long-term sources of economic funds available in the community. As part of a country's economic system, especially in the financial sector, the capital market provides two main functions for society, each of which has different interests, namely as an economic and financial function.

In carrying out its economic function, the capital market provides facilities for transferring funds from parties who have excess funds (investors) to parties who need funds (issuers). In this case investors are market participants who invest their money in the capital market. By investing the

excess funds they have, investors hope to get a return from the delivery of these funds. For issuers, the availability of these funds in the capital market allows them to carry out business activities without having to wait for the funds they obtain from the company's operations.

This kind of process is expected to increase the productivity of the company. The financial function of the capital market is carried out by providing the funds needed by issuers, where investors hand over these funds without having to be directly involved in the form of ownership of real assets used in these investment activities. The capital market is a means that can support the economy, this is possible because the capital market raises the movement of long-term funds from investors which are then channeled to productive sectors with the hope that these sectors can develop and generate new jobs for the community. In the capital market, it is necessary to carry out reports related to the capital market, namely the most important financial reports for companies, generally investors. Investors need to know and choose which stocks can provide the most optimal returns for the funds invested. Where in the analysis and selection of stocks, investors need relevant and adequate information.

Financial reports are very useful for investors to determine the best and profitable investment decisions. For investors who carry out company analysis, the financial statements issued by the company are one of the easiest and cheapest types of information to obtain compared to other information alternatives. Financial reports are the most important management for a company such as a mining company.

If mining companies are able to generate profits in line with rising mining commodity prices on the international market, then investors will be interested in investing in mining stocks, because the return on investment continues to increase. With the increasing number of requests for company shares, it will indirectly increase the value of the company.

2. METHOD

In this study, the type of research used is explanatory research. According to Singarimbun (1995:5) explanatory research is used to explain the causal relationship between variables through hypothesis testing. The main reason for choosing this type of explanatory is to test the proposed hypothesis. It is hoped that this hypothesis can explain the relationship and influence of the independent variables, in this case DER, ROE, DPS EPS, PER with the dependent variable, namely the share price of mining companies in 2004-2006.

Population is a generalized area consisting of objects or subjects that have certain quantities and characteristics determined by researchers to be studied and then drawn conclusions (Sugiyono, 2005: 90). The population in this study were all mining companies that went public on the Jakarta Stock Exchange in the period 2003-2005 totaling 11 companies. From the population above, samples were taken using purposive sampling method. Based on sampling using purposive sampling.

Table 1. List of Samples

No	Code	Company Name
1	ANTM	PT. Aneka Tambang (Persero), Tbk
2	BUMI	PT. Bumi Resources, Tbk
3	ENRG	PT. Energi Mega Persada, Tbk
4	INCO	PT. International Nickel Indonesia, Tbk
5	MEDC	PT. Medco Energi International, Tbk
6	PGAS	PT. Perusahaan Gas Negara (Persero), Tbk
7	PTBA	PT. Tambang Batu Bara Bukit Asam, Tbk
8	TINS	PT. Timah (Persero), Tbk

In this study the type of data used is secondary data. Secondary data is a source of research data obtained by researchers indirectly through intermediary media (obtained and recorded by other parties). The data collection technique that will be used in this study is documentation, namely data collection techniques by recording secondary data. Furthermore, the data obtained and collected from various sources, sorted and selected according to the needs of the research conducted.

Based on the problems and hypotheses proposed in the previous chapter, the variables studied are grouped into two variables, namely: The dependent variable in this study is stock prices. The share price used is the share price a year after the publication of the financial statements. Where the calculation of the share price is obtained from the closing price per month of shares which is

calculated on average per year expressed in units of rupiah. Hereinafter referred to as the dependent variable, namely the stock price (Y) and the Independent Variable

Hereinafter referred to as the independent variable, namely the variable that is suspected of independently influencing the dependent variable. To determine the relationship between stock prices and DER, ROE, DPS, EPS and PER, multiple regression analysis will be used with the OLS method. This method was chosen because this research aims to examine the variables that influence the independent variable on the dependent variable and several tests are carried out for better research results.

3. RESULTS AND DISCUSSION

The capital market in Indonesia, which is now known, actually existed since the Dutch colonial era. The emergence of the capital market in Indonesia officially began with the establishment of the Vereniging voor de Effectenhandel in Jakarta on December 14, 1912. The high and low prices of company shares in the capital market were determined by the high and low demand for the company's shares, which were influenced by financial information. The greater the demand, assuming the supply remains, the higher the share price. In this study, the stock price was obtained from the closing price per month of shares, which was calculated as an average per year expressed in rupiah units during 2004 to 2006.

Table 2. Share Price (Rupiah)

No	ISSUER	2004	2005	2006	Issuer average
1	ANTM	1,383.33	2,457.91	6,506.25	3,449.16
2	EARTH	617.91	809.16	825.00	750.69
3	ENRG	203.25	762.50	675.00	546.92
4	INCO	25,850.00	14,000.33	21,362.50	20,404.28
5	MEDC	2,087.00	3,114.58	3,806.25	3,002.61
6	PGAS	1,391.66	3,852.08	11,162.00	5,468.58
7	PTBA	906.	16 1,645.00	3,257.08	1,936.08
8	TINS	2,122.91	1,959.16	2,397.08	2,159.72
	Average	3,575.09	4,320.28	6,248.90	4,714.75

The average stock price for three years in the sample companies is IDR 4,714.75. The highest share price on average is Rp. 20,404.28 by PT. International Nickel Indonesia, Tbk. The lowest share price on average is Rp. 546.92 by PT. Energi Mega Persada, Tbk. Based on the annual average, the highest share price occurred in 2006 amounting to Rp. 6248.90 and the lowest share price occurred in 2003 amounting to Rp. 3575.09.

3.1 Statistical Testing

One of the requirements to be able to use the multiple regression equation is the fulfillment of the classical assumptions. In order to obtain an unbiased and efficient examination value (Best Linear Unbias Estimator/BLUE) from a multiple regression equation, it is necessary to test to find out if the resulting regression model meets the requirements of the classical assumptions.

3.1.1 Multicollinearity Test, Heteroscedasticity, Autocorrelation

From the multicollinearity test, it can be concluded that the study only uses four independent variables, namely DER, ROE, EPS and PER because the DPS variable is indicated to have collinearity with other independent variables. Heteroscedasticity will result in the estimation of the regression coefficients to be inefficient. The results of the assessment will be less than it should be. Heteroscedasticity contradicts one of the basic assumptions of linear regression, namely that the residual variation is the same for all observations or is called Homoscedasticity (Gujarati, 1997:178). To test the absence of heteroscedasticity, Spearman's rank correlation test was carried out. Heteroscedasticity can be determined by comparing the significance of t with a significance level of 5%. The assumption of autocorrelation is defined as the occurrence of a correlation between observational data. The emergence of a data is influenced by previous data. From statistical processing it is known that the Durbin-Watson (DW) value is 1.762 so there is no autocorrelation.

Table 3. Variable Variance Inflation Factor (VIF) Multicollinearity Test

No	VIF value	Information
DER	4.109	There is no indication of collinearity between the explanatory variables
ROE	2,542	There is no indication of collinearity between the explanatory variables

DPS	165,942	There are indications of collinearity between the explanatory variables
EPS	163,690	There are indications of collinearity between variables
PER	3.157	There is no indication of collinearity between the explanatory variables

3.1.2 Multiple Linear Regression Analysis

To determine the effect of the independent variables consisting of DER, ROE, DPS, EPS and PER on the dependent variable, namely stock prices, the test tool used is multiple linear regression analysis. However, the DPS variable must be excluded from the regression model because it indicates multicollinearity. The equation shows that constants, ROE variables, EPS variables and PER variables have a positive direction or are directly proportional to the dependent variable. While the DER variable shows a negative or opposite direction to the dependent variable.

3.2 Hypothesis Testing Results

Considering that the DPS variable must be excluded from the regression model because it indicates multicollinearity. To show whether all the variables included in the regression model have a jointly significant effect on the dependent variable, the F test is used.

Table 4. F Test Results

Hypothesis	Mark	Status
There is a significant influence simultaneously from the DER variable, ROE, EPS and PER on prices Share	Fcount = 35,953 SigF = 0.000 Ftable = 2.90	H0 is rejected

From the F test, the Fcount value was 35.953. This value is greater than Ftable ($35.953 > 2.90$), this indicates that there is a significant influence of the DER, ROE, EPS and PER variables on stock prices. Apart from looking at the value of F, another way that can be used is to compare the probability of Fcount with $\alpha = 5\%$. From the table above, the probability of Fcount is 0.000, because the probability of Fcount is less than 0.05, the independent variable simultaneously has a significant effect on the dependent variable.

4. CONCLUSION

Based on the results of the analysis in the previous chapter, the conclusion that can be drawn from this study is that the results of simultaneous testing show that the Debt To Equity Ratio (DER), Return On Equity (ROE), Earning Per Share (EPS), and Price Earning Ratio (PER) has a simultaneous effect on the share price of mining companies that go public on the JSX. The magnitude of the influence of the four variables on stock prices is 85.9%, while 14.1% is influenced by other variables not included in the regression model. Of the four variables, only Earning Per Share (EPS) partially has a significant effect on the share prices of mining companies that go public on the JSE and Earning Per Share (EPS) has a dominant influence on the share prices of mining companies that go public on the JSX.

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The suggestion for this research is that the number of samples in this study is only mining companies, further similar research is suggested to increase the number of samples by adding samples from other industrial categories and in this study the year of observation is only three years, further similar research is suggested to increase the number of years of observation.

REFERENCES

- Abdul Halim, 2005, Analisis Investasi, Edisi Kedua, Salemba Empat, Jakarta.
 Anto Dajan. 1986, Pengantar Metode Statistik, Jilid Dua, LP3ES, Jakarta.
 Ali Arifin, 2002, Membaca Saham, Andi Offset, Yogyakarta.
 Aliman, 2000, Metodologi Penelitian Ekonomi, PAU Studi Ekonomi UGM Yogyakarta.
 Aryo Daru Driyo, 2005, Prospek Komoditas Tambang, Economic Review Journal, No. 200, Juni, hal 1-8.
 Brealey, Richard dan Stewart Myers, 1991, Principles of Corporate Finance, Second Edition, Mc Graw Hill, New York.

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- Dahlan Siamat, 2001, *Manajemen Lembaga Keuangan*, Edisi Ketiga, FE UI. Jakarta.
- Erina Kharisma dan Ghozali Masaki, 2003, *Analisis Pengaruh Variabel Fundamental dan Tekhnikal Terhadap Harga Saham (Studi di Bursa Efek Surabaya)*, *Lintas Ekonomi* Volume XX, 2/2003, Juli, hal188-202.
- Febe Ika Anggraeni, 2004, *Analisis Pengaruh Variabel-Variabel Fundamental Terhadap harga Saham Pada Perusahaan farmasi Yang Go Public Di Bursa Efek Jakarta*, Tesis Pasca Sarjana Universitas Brawijaya Malang.
- Gujarati, Damodar, 1978, *Basic Econometric*, Terjemahan oleh Sumarno Zein, 1997, Erlangga, Jakarta.
- Julian, Frank, 2005, "Indonesian Mine and Energy", *Economic Review Journal* Vol. 8, pp. 16-31.
- Junaidi dan Darmansah, 2003, "Petunjuk Praktis Operasional" SPSS Versi 10.0, Media Komputindo, Jakarta.
- Nur Indranto dan Bambang Supomo, 2000, *Metodologi Penelitian Untuk Akuntansi dan Manajemen*, BPFE, Yogyakarta.
- Purbayu Budi Santoso dan Ashari, 2005, *Analisis Statistik dengan Microsoft Excel dan SPSS*, Andi, Yogyakarta.
- Ronny Malavia Mardani, 2003, *Petunjuk Praktis Operasional SPSS*, Edisi Revisi, Lembaga Penerbitan Fakultas Ekonomi Universitas Islam Malang.
- Ross, Stepeh A, Randolph W. Westerfield dan Bradford D. Jordan, 2003, *Fundamental Of Corporate Finance*, Sixth Edition, McGraw Hill, New York.
- Samuel, 2005, *Analisis Saham*, (Online), (<http://www.duves.net/2005/10/analisis saham.html>, diakses 3 maret 2007)
- Singarimbun, Masri, 1995, *Metode Penelitian Survei*, Penerbit PT. Pustaka LP3ES Ind., Anggota IKAPI, Jakarta.
- Singgih Santoso, 2001, *Buku Latihan Statistik Parametrik*, PT Elex Media Komputindo, Jakarta. , 2002, *SPSS Versi 10 Mengolah Data Statistik Secara Profesional*, PT Elex Media Komputindo, Jakarta.
- Simamora, Bilson, 2004, *Riset Pemasaran, Teori dan Aplikasi*, Cetakan Pertama, Gramedia Pustaka Pertama, Jakarta.
- Sritua Arief, 1993, *Metodologi Penelitian Ekonomi*, UI-Press, Jakarta.
- Sunariyah, 2003, *Pengantar Pengetahuan Pasar Modal*, UPP AMP YKPN, Yogyakarta.
- Suad Husnan, 2001, *Dasar-dasar Teori Portofolio dan Analisis Sekuritas*, Edisi Kedua, UPP AMP YKPN, Yogyakarta.
- Syahrial Ramadhan, 2004, *Pasar Uang dan pasar Modal*, (Online), (<http://www.seputarekonomi.blogspot.com/2004/11/pasar-uang-dan-pasarmoda.html>, diakses 3 maret 2007)
- Tandellin, Eduardus, 2003, *Analisis Investasi dan Manajemen Portofolio*, BPFE Yogyakarta.
- Taufik, 2001, *Kajian Capital Market, Leverage dan Profitability Terhadap Harga Saham Di Bursa Efek Jakarta*, *Jurnal Kajian Ekonomi Dan Bisnis* Volume 3, 2/2001, hal 73-84.
- Tendi Haruman dan Maya Arianti, 2005, *Pengaruh Faktor Fundamntal Fundamental dan Resiko Sistematis terhadap Tingkat Pengembalian Saham BEJ*, *Usahawan*, 11/TH. XXXIV, Nopember, hal 26-37.
- Warsono, 2003, *Manajemen Keuangan Perusahaan*, Edisi Ketiga, UMM- Press, Malang.
- Weston, J. Fred dan Thomas E Copeland, 1995, *Manajemen Keuangan*, Jilid Satu, Edisi Kesembilan, Binarupa Aksara, Jakarta.